

We claim:

1. A method for separating disc-shaped bodies from a source body having a face and a longitudinal direction, including the steps of:
  - 5 guiding the source body in a tunnel,
  - mounting a plurality of lamps in a planar fashion along the longitudinal direction of the source body in the tunnel,
  - illuminating the source body and the environment of the face of the source body with said plurality of lamps,
  - 10 optically detecting a respective face of the source body with a detection device by means of the contrast between the environment of the face and the face,
  - determining the slice thickness required for a predetermined slice weight from the specific gravity of the source body and face, and
  - controlling separation of the disc-shaped body from the source body
  - 15 utilizing the value determined in the preceding step.
2. A method according to claim 1, the lamps are pulse-controlled and the respective face is trigger photographed by the detection device.
- 20 3. A method according to claim 1, wherein the lamps are individually automatically adjusted, including the steps of:
  - storing setting parameters for the lamps for certain ambient conditions,
  - reading out the setting parameters as a function of the respective
  - 25 ambient condition,
  - adjusting the lamps as a function of the read-out setting parameters and the respective ambient conditions.
- 30 4. A method according to claim 3, wherein the adjustment of the lamps is controlled by the detection device to eliminate reflection and increase contrast.

5. A method according to claim 1, wherein the face is additionally illuminated and the detection device evaluates surface structures of the face and the slice thickness required for a predetermined slice weight is also determined as a function of the surface structure of the face.

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Subcl  
6. An apparatus for separating disc-shaped bodies from a source body having a face and a longitudinal direction, the apparatus including a separating device; an advance device for advancing the source body towards the separating device; an optical detection device for determining the face contour of the source  
10 body and having lamps for illuminating the environment of the face, wherein the optical detection device determines the face by means of the contrast between the environment of the face and the face, and the source body is advanced as a function of the measured face; the improvement comprising:

15 a tunnel in which the source body is guided, the tunnel having an end adjacent the separating device, and means for mounting the lamps in the tunnel and in a planar fashion along the longitudinal direction of the source body.

7. An apparatus according to claim 6, wherein the lamps are individually adjustable.

20 8. An apparatus according to claim 7, wherein the direction of radiation of the lamps can be oriented individually.

25 9. An apparatus according to claim 7, wherein the lamps are movable by motorised means and a control system is provided for adjustment of the lamps.

10. An apparatus according to claim 9, wherein the control system has a memory for the storage of settings for the lamps for respective ambient conditions.

11. An apparatus according to claim 10, wherein the control system evaluates reflection and contrast of the detected image and the control system adjusts the lamps to minimise reflection and increase contrast.

5 12. An apparatus according to claim 6, wherein the lamps are controlled in pulsed fashion and the detection device is controlled in correspondingly triggered fashion.

10 13. An apparatus according to claim 6, wherein the lamps are potted and form a smooth surface.

14. An apparatus according to claim 6, wherein the tunnel is made of a reflective material.

15 15. An apparatus according to claim 6, wherein the tunnel comprises a first region in which the lamps deliver diffuse radiation with an intensity which is reduced towards the face, wherein the first region consists of the front surface of the tunnel at the face, the central region of the cover, the front and central portions of the side walls and the bottom of the tunnel.

20 16. An apparatus according to claim 15, wherein the tunnel comprises a second region in which the lamps deliver radiation directed rearwards away from the face, wherein the second region is composed of the front portion of the cover adjacent to the face.

25 17. An apparatus according to claim 15, wherein the tunnel comprises a third region in which the lamps deliver radiation directed obliquely forwards towards the face, wherein the third region is composed of the rear region of the cover.

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18. An apparatus according to claim 15, wherein the tunnel comprises a fourth region in which the lamps deliver radiation directed straight onto the source body, wherein the fourth region is composed of the central region of the exposed side wall.

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19. An apparatus according to claim 15, wherein the side wall with which the source body is in contact is slidable.

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